

REMARKS

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 1 and 7-14 are pending. Claims 1, 4, and 7 are amended, and claims 8-14 are added. Claims 1 and 4 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Drawings

It is gratefully appreciated that the Examiner has accepted the drawings.

Claim for Priority

It is gratefully appreciated that the Examiner has recognized the Applicants' claim for foreign priority.

Acknowledgement of Information Disclosure Statement

It is gratefully appreciated that the Examiner has acknowledged the Information Disclosure Statements filed on January 24, 2005 and July 29, 2005.

Claim Objection

By this amendment, the Applicants have amended claim 1 as suggested by the Examiner.

Rejection Under 35 U.S.C. § 112, first paragraph

Claims 4 and 7 stand rejected under 35 U.S.C. § 112, first paragraph for failing to comply with the enablement requirement. This rejection is respectfully traversed.

The Examiner points out that the specification and the claims fail to disclose any compositions for “parting agent” and “surface active agent.”

The Applicants respectfully submit that each of the terms “parting agent” and “surface active agent” were commonly known in the art at the time the invention was made, and therefore no further disclosure of specific compositions is required in either the specification or claims.

Following are several examples of the multitude of common and publicly available sources of information describing the terms “parting agent” and “surface active agent”:

<http://composite.about.com/library/glossary/p/bldef-p3807.htm>,

<http://www.ides.com/glossary/default.asp>,

<http://www.britannica.com/eb/article-9070437/surface-active-agent>, and

<http://en.wikipedia.org/wiki/Surfactant>.

Applicants respectfully submit that the claims, as originally filed, particularly point out and distinctly claim the subject matter which Applicants regard as the invention, and fully comply with the enablement requirement of 35 U.S.C. § 112, first paragraph.

Therefore, the rejection under 35 U.S.C. § 112, first paragraph should be reconsidered and withdrawn.

Rejections Under 35 U.S.C. § 103(a)

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaku et al. (U.S. 4,154,900); claims 4 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaku et al. in view of Takeo et al. (U.S. 2002/0157571); and claims 1, 4, and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takeo et al.

These rejections are respectfully traversed.

Amendments to Independent Claims 1 and 4

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the present application, independent claim 1 is amended herein to recite a combination of elements directed to a cast-iron insert, including *inter alia*

wherein distal ends of said protrusions have respective flat faces, the flat faces allowing the cast-iron insert to be securely held in face-to-face contact by a clamping mechanism.

In addition, independent claim 4 is amended herein to recite a combination of steps directed to a method of manufacturing cast-iron insert, including *inter alia*

positioning a clamping mechanism against respective flat faces formed at distal ends of said protrusions.

Applicants respectfully submit that this combination of features set forth in each of independent claims 1 and 4 is not disclosed or made obvious by the prior art of record, including Kaku et al. and Takeo et al.

The Kaku et al. document (See Fig. 1 and column 3, line 12) merely discloses tip ends of the projections that are deformed or flattened. Further, Kaku et al. fail to disclose substantially conical undercuts which are progressively spread outwardly from said surface. For example, Kaku et al. FIG. 1 merely discloses undercuts which are progressively spread inward (not outward) from the surface toward the deformed tip ends. In addition, Kaku et al. FIG. 3 merely discloses ball shaped powder particles 2 and rounded contact portions 5.

Further, while paragraph [0021] of the Takeo et al. document discloses fine protrusions with an outer circumferential surface, there is no disclosure whatsoever, that the protrusions have flat faces on distal ends thereof. Takeo et al. FIG. 4 shows protrusions that are stably formed, but no indication is provided regarding their shape. In addition, there is no teaching whatsoever in Takeo et al. that the protrusions include substantially conical undercuts which are progressively spread outward from the surface toward the deformed tip ends.

Still further, there is no indication that the inventors of either the Kaku et al. invention or the Takeo et al. invention recognized the need for flat faces on the protrusions in order to be able to securely hold the insert with a clamping mechanism. Thus, while the Kaku et al. invention (and the Takeo et al. invention) may provide good bonding (as the Examiner

asserts on page 4 of the Office Action), neither of these devices includes flat faces on the protrusions for securely holding the insert with a clamping mechanism, as presently claimed.

Thus, no combination of Kaku et al. and Takeo et al. sets forth or makes obvious each and every feature of the present invention. Nor would one skilled in the art find it obvious to modify the combination of Kaku et al. and Takeo et al. to include flat faces on the ends of the protrusions so that the insert could be securely held by a clamping mechanism.

At least for the reasons described above, the Applicants respectfully submit that the combination of features set forth in each of independent claims 1 and 4 is not disclosed or made obvious by the prior art of record, including Kaku et al. and Takeo et al. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Dependent Claims

The Examiner will note that dependent claim 7 has been amended merely to place it in better form, and dependent claims 8-14 have been added to set forth additional novel features of the present invention. Therefore, all dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

CONCLUSION


Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

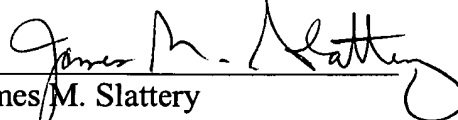
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030 (Direct Line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

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JMS/CTT/af 

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